DCoMPASS™

Digital Compact Multi-Purpose Advanced Stabilized System - UAV

General

The DCoMPASS payload is the one of the newest members of our CoMPASS battle-proven stabilized EO payload family, in service with leading customers worldwide.

- Delivers superb day and night intelligence, surveillance, target acquisition and tactical reconnaissance (ISTAR) capabilities in the harshest weather conditions
- Single LRU configuration integrating up to five EO elements: HD color TV camera with optional low light mode, large format thermal imager, laser target illuminator, eyesafe laser rangefinder (ELRF) and laser target designator
- Lightweight, small size payload made possible by new miniature digital electronics and advanced lightweight materials
- Precise geo-location and pointing capabilities provided by incorporated gimbal IMU (Inertial Measurement Unit)
- Battle proven, military qualified for airborne application

Elbit Systems™ ISTAR & EW

DCoMPASS

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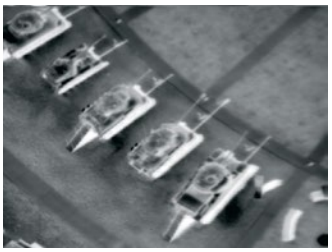
Applications

- Border and maritime patrol
- Surveillance
- Law enforcement
- Laser targeting



Main Advantages & Features

- Highly stabilized crystal clear image on both HD color TV and thermal imager
- Compact and lightweight design permits additional payload and fuel capacity in the carrying platform while facilitating future upgrades
- Inertial Measurement Unit (IMU) provides highly accurate geo-location and rock solid stabilization
- Unique in-flight boresight mechanism enables long range precise laser designation
- Simple system integration with helmet mounted systems (HMS), radar and fire control applications
- Advanced video enhancement package including: haze penetration, color restoration and sharpening features
- Step & Stare feature provides ISR persistence

Technical Data

System

• Diameter	15″
• Weight	<33 Kg
• Angular coverage	
• - Azimuth	N x 360º
• - Elevation	+35º to -85º
• Environmental conditions	MIL-STD-810F

Day Channel (HD)

• Camera type	Large format digital CCD color camera
• Sensor	2/3″ CCD
• No. of pixels	1394 x 1040
• FOV (continuous zoom)	
• - Narrow	0.59º x 0.44º
• - Wide	21.25º x 16º
• Thermal Imager	
• FLIR	Cooled 3rd generation 3-5 µm FPA with 640 x 512 pixels

- FOV

	FLIR A - TOPAZ	FLIR B - LOTUS
Wide	24º X 18º	13.7º X 10.4º
Medium	Continuous	2.0º x 1.5º
Narrow	0.8º X 0.6º	0.61º x 0.46º

Laser Sensors

• Laser Rangefinder (Eyesafe)	
- Wavelength	1.54 µm
- Rate	1 pps
• Dual Wavelength Laser Target Designator &	
• Rangefinder (LRFTD)	
- Transmitter	Diode-pumped advanced technology
- Wavelength	1.064 µm / 1.57 µm
- Max pulse rate	20pps
• Laser target illuminator/pointer	
- W avelength	830 nm (NVG compatible)

Interface Communications

- RS422
- MIL-STD-1553
- Ethernet

Video Output

- PAL, NTSC
- Gigabit Ethernet (GigE)

Additional features

- Geo-location using Inertial Measurements Unit (IMU)
- Auto-tracker
- Step & Stare
- Picture In Picture (PIP)

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